APD17A

<table>
<thead>
<tr>
<th>MODEL</th>
<th>Power Pf. 0.8</th>
<th>APD17A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standby</td>
<td>kVA</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>kW</td>
<td>13.6</td>
</tr>
<tr>
<td>Prime</td>
<td>kVA</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>kW</td>
<td>12.8</td>
</tr>
</tbody>
</table>

Standby: Continuous running at variable load for duration of an emergency. No overload is permitted on these ratings. In accordance with ISO 3046.
Prime: Continuous running at variable load for unlimited periods with 10% overload available for 1 hour in any 12 hour period. In accordance with ISO 8528, ISO 3046.

✓ High quality, reliable and complete power unit
✓ Compact design
✓ Easy start and maintenance possibility
✓ Every generating set is subject to a comprehensive test program which includes full load testing, checking and provision of all control and safety shut down functions testing
✓ Fully engineered with a wide range of options and accessories: Canopy, sound proof canopy and on-road trailer

Manufacturer reserves the right to make changes in model, technical specifications, color, equipment and accessories without prior notice.
## ENGINE

<table>
<thead>
<tr>
<th><strong>Model</strong></th>
<th>A4CRX18</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Engine Power Output</strong></td>
<td>kWm 18</td>
</tr>
<tr>
<td>at rated rpm</td>
<td>HiP 24.13</td>
</tr>
<tr>
<td><strong>Aspiration and Cooling</strong></td>
<td>Natural</td>
</tr>
<tr>
<td><strong>Total Displacement</strong></td>
<td>Litre 1.808</td>
</tr>
<tr>
<td><strong>No. of Cylinders and Build</strong></td>
<td>4 - Inline</td>
</tr>
<tr>
<td><strong>Engine Speed</strong></td>
<td>rpm 1500</td>
</tr>
<tr>
<td><strong>Bore and Stroke</strong></td>
<td>mmxmm 80x90</td>
</tr>
<tr>
<td><strong>Compression Ratio</strong></td>
<td>18:1</td>
</tr>
<tr>
<td><strong>Governor</strong></td>
<td>Mechanical</td>
</tr>
<tr>
<td><strong>Fuel Consumption at full load</strong></td>
<td>L/hr 4.6</td>
</tr>
<tr>
<td><strong>Fuel Tank Capacity</strong></td>
<td>Litre Open: 32/Canopy: 32</td>
</tr>
<tr>
<td><strong>Oil Capacity</strong></td>
<td>Litre 6.5</td>
</tr>
<tr>
<td><strong>Coolant Capacity</strong></td>
<td>Litre 18.5</td>
</tr>
<tr>
<td><strong>Radiator Cooling Air</strong></td>
<td>m³/min 210</td>
</tr>
<tr>
<td><strong>Air Intake – Engine</strong></td>
<td>m³/min 1.26</td>
</tr>
<tr>
<td><strong>Exhaust Gas Flow</strong></td>
<td>m³/min 5.8</td>
</tr>
</tbody>
</table>

- Heavy duty Aksa diesel engine
- Four stroke, water cooled, Natural
- Direct injection fuel system
- Mechanical Governor system
- 12/24 V D.C. starter and charge alternator
- Replaceable fuel filter, oil filter and dry element air filter
- Cooling radiator and fan
- Starter battery (with lead acid) including Rack and Cables
- Flexible fuel connection hoses and manual oil sump drain valve
- Industrial capacity exhaust silencer and steel bellows
- Jacket water heater(at automatic models)
- Operation manuals and circuit diagram documents

## ALTERNATOR

<table>
<thead>
<tr>
<th><strong>Design</strong></th>
<th>Brushless single bearing, revolving field</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stator</strong></td>
<td>2/3 pitch</td>
</tr>
<tr>
<td><strong>Rotor</strong></td>
<td>Single bearing, flexible disc</td>
</tr>
<tr>
<td><strong>Insulation System</strong></td>
<td>Class H</td>
</tr>
<tr>
<td><strong>Standard Temperature Rise</strong></td>
<td>125 - 163°C Continuous</td>
</tr>
<tr>
<td><strong>Exciter Type</strong></td>
<td>Self Excited</td>
</tr>
<tr>
<td><strong>Phase Rotation</strong></td>
<td>A (U), B (V), C (W)</td>
</tr>
<tr>
<td><strong>Alternator Cooling</strong></td>
<td>Direct drive centrifugal blower fan</td>
</tr>
<tr>
<td><strong>AC Waveform Total Harmonic Distortion</strong></td>
<td>No load &lt; 1.5%. Non distorting balanced linear load &lt; 5%</td>
</tr>
<tr>
<td><strong>Telephone Influence Factor (TIF)</strong></td>
<td>&lt;50 per NEMA MG1-22.43</td>
</tr>
<tr>
<td><strong>Telephone Harmonic Factor (THF)</strong></td>
<td>&lt;2%</td>
</tr>
</tbody>
</table>

- Brushless, single bearing system, flexible disc, 4 poles
- Insulation class H
- Standard degree of protection IP21 (*IP22/IP23 is available.)*
- Self-exciting and self-regulating
- Impregnation with tropicalised epoxy varnish
- Solid state Automatic Voltage Regulator
- Stator winding with 2/3 pitch for improved harmonics

---

www.aksapowergen.com
CONTROL SYSTEM

Control supervision and protection panel is mounted on the genset base frame. The control panel is equipped as follows:

1. **Auto Mains Failure Control Panel**
   - Panel equipments:
     ✓ Control with AMF module
     ✓ Static battery charger
     ✓ Emergency stop push button

   **a) Generating set control module DSE6120 features:**
     ✓ The module is used to monitor main supply and starts and stops of a standby generating set
     ✓ Micro-processor based design
     ✓ Automatic control of main and generator contactors
     ✓ Monitors engine performance and AC power output LED alarm indication
     ✓ Front panel configuration of timers and alarm trip points
     ✓ 4 configurable analogue/digital inputs, 6 configurable digital inputs
     ✓ 4 configurable DC outputs
     ✓ Easy push button control
     STOP/RESET - MANUAL - AUTO - TEST - START

   **b) Metering via LCD display:**
     ✓ Generator Volts (L-L / L-N)  Generator kVA
     ✓ Engine oil pressure (PSI-Bar)  Generator kW
     ✓ Engine temperature (“C &” F)  Generator Cos (σ)
     ✓ Generator Frequency (Hz)
     ✓ Plant battery volts
     ✓ Engine hours run
     ✓ Mains Volts (Ph-Ph/Ph-N)

c) **Alarms:**
   ✓ Over and Under Speed
   ✓ Low and High Battery Volt.
   ✓ Start and Stop Failure
   ✓ Charge fail
   ✓ Over Current
   ✓ Under / Over Generator Voltage
   ✓ Low Oil Pressure
   ✓ Emergency stop
   ✓ High engine temperature

d) **LED indications:**
   ✓ Mains available
   ✓ Generator available
   ✓ Mains on load
   ✓ Generator on load

2. **Power Outlet Terminal Board Mounted on the Gen-set Base Frame**

OPTIONAL EQUIPMENTS

**Diesel Engine**
- ✓ Oil heater

**Alternator**
- ✓ 3/4 Pole Output Circuit Breaker
- ✓ Anti-condensation Heater

**Panel**
- ✓ Charge ammeter
- ✓ Transfer Switch 3Pole
- ✓ Transfer Switch 4 Pole
- ✓ Earth Fault single set

**Accessories**
- ✓ Bulk fuel tank
- ✓ Automatic filling system
- ✓ Fuel-water separator filter
- ✓ Low fuel level alarm
- ✓ Residential silencer
- ✓ Enclosure or sound proof canopy
- ✓ Trailer
- ✓ Manual oil drain pump
- ✓ Tool kit for maintenance
CHASSIS

- The complete gen-set is mounted as whole on a heavy-duty fabricated, steel base frame
- Anti-vibration pads are fixed between the engine/alternator feet and the base frame
- Base frame design incorporates an integral fuel tank (Up to 750 kVA)
- The generating set can be lifted or carefully pushed/pulled by the base frame
- Dial type fuel gauge and drain plug on the fuel tank
- Forklift pockets within base frame (up to 500 kVA)

DIMENSIONS

<table>
<thead>
<tr>
<th>OPEN TYPE</th>
<th>SOUND ATTENUATED TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIMENSIONS (LxWxH) mm</td>
<td>1400x760x927</td>
</tr>
<tr>
<td>DRY WEIGHT kg</td>
<td>390</td>
</tr>
<tr>
<td>DIMENSIONS (LxWxH) mm</td>
<td>1672x823x1127</td>
</tr>
<tr>
<td>DRY WEIGHT kg</td>
<td>520</td>
</tr>
</tbody>
</table>

CANOPY

- All canopy parts are designed with modular principles
- Without welding assembly
- Doors on each side
- All metal canopy parts are painted by electrostatic polyester powder paint
- Exhaust silencer is protected against environment influences
- Thermally insulated engine exhaust system
- Emergency stop push button is installed outside of the canopy
- Easy lifting and moving
- Easy maintenance and operation

Aksa Power Generation
Evren Mah.Gulbahar Caddesi 1.Sokak Gunesli-Istanbul-TURKEY
Tel:+90 212 478 66 66 Fax:+90 212 657 55 16 E-mail: aksa@aksapowergen.com
www.aksapowergen.com
Aksa Power Generation is a member of